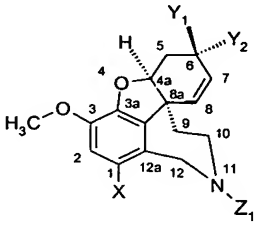
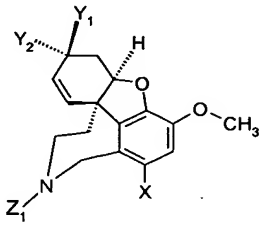
LISTING OF CLAIMS:

1. (Currently amended) ~~New derivatives~~ A derivative of 4a,5,9,10,11,12-hexahydrobenzofuro[3a,3,2][2] benzazepine with the general formulas Ia or Ib



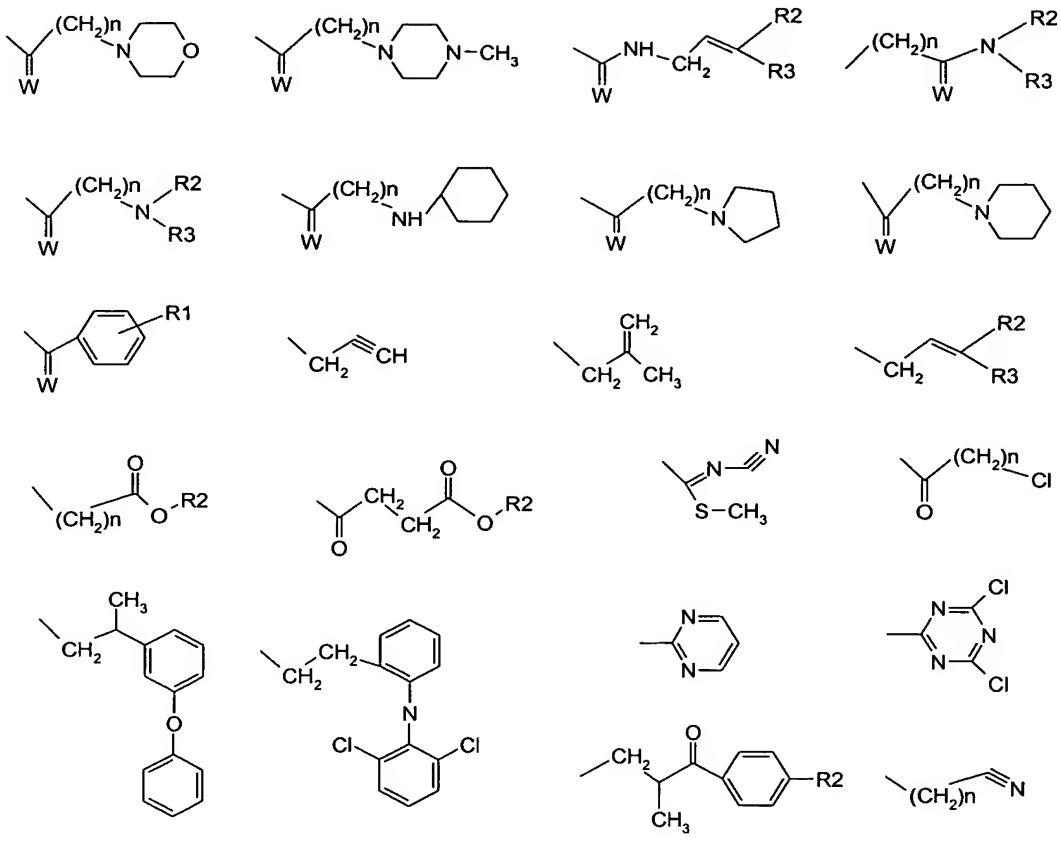
Ia



Ib

and their salts, where

- Ia represents optically active (-) derivatives of galanthamine and Ib represents optically active (+) derivatives of galanthamine, which occur in a mirror configuration, and in which
- Y_1 and Y_2 are alternately H or OH,
- X = H or Br and
- Z_1 = a group of the following formulas

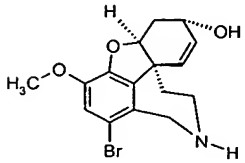
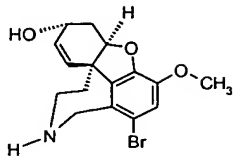
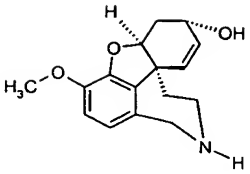
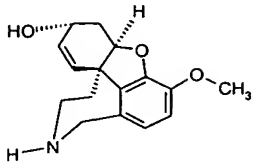


in which

- R_1 = H, Cl, Br, I, F, OH, linear or branched (C_1-C_6) alkyl, linear or branched (C_1-C_6) alkyloxy, NO_2, NR_2R_3,
- $R_2 = R_3$ = H, linear or branched (C_1-C_6) alkyl
- W = H, O, S
- n = 0 or 1-6

in which

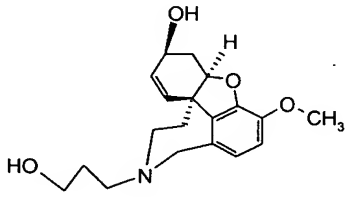
- Z_1 is equal to H solely for compounds **1, 3, 13** and **24**

1 **3** **13** **24**

where compounds **1** and **13** are (-) derivatives of 6-epinorgalanthamine and compounds **3** and **24** are (+) derivatives of 6-epinorgalanthamine, and in which

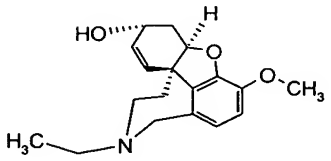
- Z_1 is equal to hydroxypropyl solely for the compound **29**



29

and

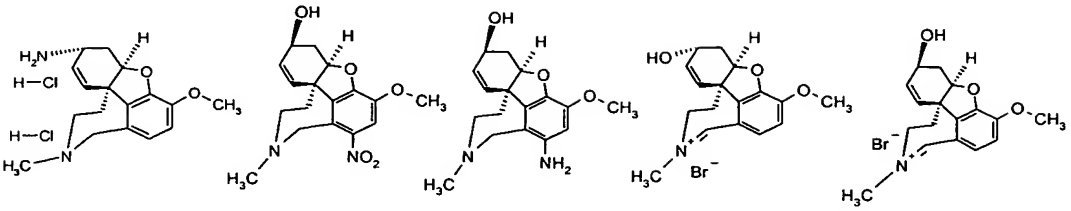
- Z_1 is equal to ethyl solely for the compound **26**



26

and

- Z_1 is equal to methyl solely for the following compounds

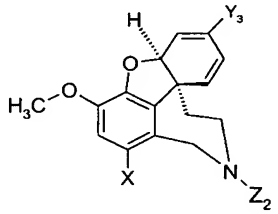


28 **31** Step 1 **31** Step 2 **56** **55**

and

where compounds **29, 31** and **55** are (+) derivatives of galanthamine and compounds **26, 28** and **56** are (+)-epi derivatives of galanthamine.

2. (Currently amended) ~~New derivatives~~ A derivative of 4a,5,9,10,11,12-hexahydrobenzofuro[3a,3,2][2]benzazepine with the general formula Ic



Ic

and their salts, where

- X is H or Br,
- Z_2 is H, linear or branched (C_1-C_6) alkyl, linear or branched (C_2-C_7) alkenyl, linear or branched (C_2-C_7) alkinyl and
- Y_3 is linear or branched (C_1-C_6) alkyl, phenyl, linear or branched (C_1-C_6) alkylphenyl, nitrophenyl, chlorophenyl, bromophenyl, aminophenyl, hydroxyphenyl.

3. (Currently amended) A method for the preparation of ~~compounds~~ a compound as in Claim 1[[,]] ~~which is characterized by the fact that~~ comprising treating an optically active 11-norgalanthamine derivative ~~is treated~~ with dilute acid~~, preferably dilute hydrochloric acid~~.

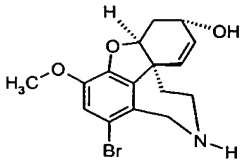
4. (Currently amended) A method as in Claim 3, ~~which is characterized by the fact that~~ wherein an optically active 11-norgalanthamine derivative is converted to a 6-epi derivative of galanthamine by treatment with dilute acid.

5. (Currently amended) A method as in Claim 3, ~~or 4, which is characterized by the fact that~~ wherein the steric configuration at carbon 6 is changed in the acid treatment~~, whereas~~ and the steric configuration at the asymmetric carbon atoms 4a and 8a remains unaltered.

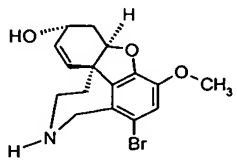
6. (Currently amended) A method for the preparation of ~~the~~ a compounds as in Claim 1, ~~or 2, which is characterized by the fact that~~ wherein alkylation or acylation reactions are carried out in a solvent chosen from the group consisting of toluene, acetonitrile, ethanol, acetone, 2-butanone, dimethyl formamide ~~or~~ and chloroform.

7. (Currently amended) A method as in Claim [[6]] 28, ~~which is characterized by the fact that~~ wherein the compounds with the general formula Ic are prepared from the corresponding (-)-narwedine components by alkylation in a multistep Grignard reaction.

8. (Currently amended) A method for preparation of compounds **1**, **3**, **13** and **24**



1



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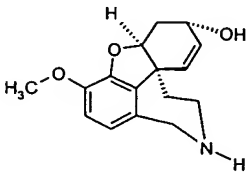

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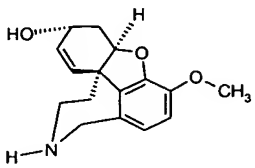

24

~~which is characterized by the fact that~~ comprising reacting the corresponding starting compounds based on norgalanthamine ~~are reacted~~ in the presence of a base.

9. (Currently amended) A method as in Claim ~~7~~ 8, ~~which is characterized by the fact that~~ wherein sodium hydrogen carbonate, potassium carbonate, sodium hydroxide, potassium hydroxide, triethylamine or pyrridine or mixtures thereof are used as base.

10. (Currently amended) A method as in Claim 8, ~~or 9, which is characterized by the fact that~~ wherein the base is used in an amount between 5 and 20 wt% with respect to 100 wt% starting product.

11. (Currently amended) A drug ~~containing~~ comprising one or more ~~compounds Ia, Ib or Ic~~ of the compounds as in Claim 1 as a pharmaceutically active agent.

12. (Currently amended) ~~The use of one or more compounds Ia, Ib or Ic in pure form or in the form of their pharmaceutically safe acid addition salts to prepare a drug~~ A method for the treatment of Alzheimer's disease or related conditions of dementia comprising administering to a patient one or more compounds as in Claim 1 in pure form or in the form of their pharmaceutically safe acid addition salts.

13. (Currently amended) ~~The use of one or more compounds Ia, Ib or Ic in pure form or in the form of their pharmaceutically safe acid addition salts to prepare a drug~~ A method for the treatment of Parkinson's disease comprising administering to a patient one or more compounds as in Claim 1 in pure form or in the form of their pharmaceutically safe acid addition salts.

14. (Currently amended) ~~The use of one or more compounds Ia, Ib or Ic in pure form or in the form of their pharmaceutically safe acid addition salts to prepare a drug~~ A method for the treatment of Huntington's disease (chorea) comprising administering to a patient one or more compounds as in Claim 1 in pure form or in the form of their pharmaceutically safe acid addition salts.

15. (Currently amended) ~~The use of one or more compounds Ia, Ib or Ic in pure form or in the form of their pharmaceutically safe acid addition salts to prepare a drug~~ A method for the treatment of multiple sclerosis comprising administering to a patient one or more compounds as in Claim 1 in pure form or in the form of their pharmaceutically safe acid addition salts.

16. (Currently amended) ~~The use of one or more compounds Ia, Ib or Ic in pure form or in the form of their pharmaceutically safe acid addition salts to prepare a drug~~ A method for the treatment of amyotrophic lateral sclerosis comprising administering to a patient one or more compounds as in Claim 1 in pure form or in the form of their pharmaceutically safe acid addition salts.

17. (Currently amended) ~~The use of one or more compounds Ia, Ib or Ic in pure form or in the form of their pharmaceutically safe acid addition salts to prepare a drug~~ A method for the treatment of epilepsy comprising administering to a patient one or more compounds as in Claim 1 in pure form or in the form of their pharmaceutically safe acid addition salts.

18. (Currently amended) ~~The use of one or more compounds Ia, Ib or Ic in pure form or in the form of their pharmaceutically safe acid addition salts to prepare a drug~~ A method for the treatment of the consequences of stroke comprising administering to a patient one or more compounds as in Claim 1 in pure form or in the form of their pharmaceutically safe acid addition salts.

19. (Currently amended) ~~The use of one or more compounds Ia, Ib or Ic in pure form or in the form of their pharmaceutically safe acid addition salts to prepare a drug~~ A method for the treatment of consequences of craniocerebral trauma comprising administering to a patient one or more compounds as in Claim 1 in pure form or in the form of their pharmaceutically safe acid addition salts.

20. (Currently amended) ~~The use of one or more compounds Ia, Ib or Ic in pure form or in the form of their pharmaceutically safe acid addition salts to prepare a drug~~ A method for the treatment and prophylaxis of the effects of diffuse oxygen and nutrient deficiency in the brain such as are observed after hypoxia, anoxia, asphyxia, cardiac arrest, intoxications, narcosis and in the infant after complications in cases of difficult birth comprising administering to a patient one or more compounds as in Claim 1 in pure form or in the form of their pharmaceutically safe acid addition salts.

21. (Currently amended) ~~The use of one or more compounds Ia, Ib or Ic in pure form or in the form of their pharmaceutically safe acid addition salts to prepare a drug~~ A method for the prophylactic treatment of apoptotic degeneration in neurons that have been or are being damaged by local radio- or chemotherapy of brain tumors comprising administering to a patient one or more compounds as in Claim 1 in pure form or in the form of their pharmaceutically safe acid addition salts.

22. (Currently amended) ~~The use of one or more compounds Ia, Ib or Ic in pure form or in the form of their pharmaceutically safe acid addition salts to prepare a drug~~ A method for the treatment of bacterial meningitis comprising administering to a patient one or more compounds as in Claim 1 in pure form or in the form of their pharmaceutically safe acid addition salts.

23. (Currently amended) ~~The use of one or more compounds Ia, Ib or Ic in pure form or in the form of their pharmaceutically safe acid addition salts to prepare a drug~~ A method for the treatment of diseases within an apoptotic component~~, especially in the wake of amyloid-associated cell degeneration~~ comprising administering to a patient one or more compounds as in Claim 1 in pure form or in the form of their pharmaceutically safe acid addition salts.

24. (Currently amended) ~~The use of one or more compounds Ia, Ib or Ic in pure form or in the form of their pharmaceutically safe acid addition salts to prepare a drug and~~ A method for the treatment of diabetes mellitus~~, especially when the disease is accompanied by amyloid degeneration of the islet cells~~ comprising administering to a patient one or more compounds as in Claim 1 in pure form or in the form of their pharmaceutically safe acid addition salts.

25. (Currently amended) ~~The use of one or more compounds Ia, Ib or Ic in pure form or in the form of their pharmaceutically safe acid addition salts to prepare a drug~~ A method for the treatment of postoperative delirium and/or subsyndromal postoperative delirium comprising administering to a patient one or more compounds as in Claim 1 in pure form or in the form of their pharmaceutically safe acid addition salts.

26. (Currently amended) ~~The use of one or more compounds Ia, Ib or Ic in pure form or in the form of their pharmaceutically safe acid addition salts to prepare a drug~~ A method for the preventive treatment of postoperative delirium and/or subsyndromal postoperative delirium comprising administering to a patient one or more compounds as in Claim 1 in pure form or in the form of their pharmaceutically safe acid addition salts.

27. (New) A method as in Claim 3, wherein the dilute acid is dilute hydrochloric acid.

28. (New) A method for the preparation of a compound as in Claim 2, wherein alkylation or acylation reactions are carried out in a solvent chosen from the group consisting of toluene, acetonitrile, ethanol, acetone, 2-butanone, dimethyl formamide and chloroform.

29. (New) A drug comprising one or more of the compounds as in Claim 2 as a pharmaceutically active agent.

30. (New) A method for the treatment of Alzheimer's disease or related conditions of dementia comprising administering to a patient one or more compounds as in Claim 2 in pure form or in the form of their pharmaceutically safe acid addition salts.

31. (New) A method for the treatment of Parkinson's disease comprising administering to a patient one or more compounds as in Claim 2 in pure form or in the form of their pharmaceutically safe acid addition salts.

32. (New) A method for the treatment of Huntington's disease (chorea) comprising administering to a patient one or more compounds as in Claim 2 in pure form or in the form of their pharmaceutically safe acid addition salts.

33. (New) A method for the treatment of multiple sclerosis comprising administering to a patient one or more compounds as in Claim 2 in pure form or in the form of their pharmaceutically safe acid addition salts.

34. (New) A method for the treatment of amyotrophic lateral sclerosis comprising administering to a patient one or more compounds as in Claim 2 in pure form or in the form of their pharmaceutically safe acid addition salts.

35. (New) A method for the treatment of epilepsy comprising administering to a patient one or more compounds as in Claim 2 in pure form or in the form of their pharmaceutically safe acid addition salts.

36. (New) A method for the treatment of the consequences of stroke comprising administering to a patient one or more compounds as in Claim 2 in pure form or in the form of their pharmaceutically safe acid addition salts.

37. (New) A method for the treatment of consequences of craniocerebral trauma comprising administering to a patient one or more compounds as in Claim 2 in pure form or in the form of their pharmaceutically safe acid addition salts.

38. (Currently amended) A method for the treatment and prophylaxis of the effects of diffuse oxygen and nutrient deficiency in the brain such as are observed after hypoxia, anoxia, asphyxia, cardiac arrest, intoxications, narcosis and in the infant after complications in cases of difficult birth comprising administering to a patient one or more compounds as in Claim 2 in pure form or in the form of their pharmaceutically safe acid addition salts.

39. (New) A method for the prophylactic treatment of apoptotic degeneration in neurons that have been or are being damaged by local radio- or chemotherapy of brain tumors comprising administering to a patient one or more compounds as in Claim 2 in pure form or in the form of their pharmaceutically safe acid addition salts.

40. (New) A method for the treatment of bacterial meningitis comprising administering to a patient one or more compounds as in Claim 2 in pure form or in the form of their pharmaceutically safe acid addition salts.

41. (New) A method for the treatment of diseases within an apoptotic component comprising administering to a patient one or more compounds as in Claim 2 in pure form or in the form of their pharmaceutically safe acid addition salts.

42. (New) A method for the treatment of diabetes mellitus comprising administering to a patient one or more compounds as in Claim 2 in pure form or in the form of their pharmaceutically safe acid addition salts.

43. (New) A method for the treatment of postoperative delirium and/or subsyndromal postoperative delirium comprising administering to a patient one or more compounds as in Claim 2 in pure form or in the form of their pharmaceutically safe acid addition salts.

44. (New) A method for the preventive treatment of postoperative delirium and/or subsyndromal postoperative delirium comprising administering to a patient one or more compounds as in Claim 2 in pure form or in the form of their pharmaceutically safe acid addition salts.

45. (New) A method as in Claim 23, wherein the diseases with an apoptic component are accompanied by amyloid-associated cell degeneration.

46. (New) A method as in claim 41, wherein the diseases with an apoptic component are accompanied by amyloid-associated cell degeneration.

47. (New) A method as in claim 24, wherein the diabetes mellitus is accompanied by amyloid degeneration of the islet cells.

48. (New) A method as in claim 42, wherein the diabetes mellitus is accompanied by amyloid degeneration of the islet cells.